

PATENT
Customer No. 22,852
Attorney Docket No. 3495.0111-14

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Bernard DUJON et al.) Group Art Unit: 1636 (Prior application)
Application No.: To Be Assigned) Examiner: S. Kaushal (Prior application)
(Based on U.S. Appln. No. 09/244,130))
Filed: April 9, 2004)
For: NUCLEOTIDE SEQUENCE ENCODING THE ENZYME
I-SceI AND THE USES THEREOF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), applicants bring to the attention of the Examiner the documents listed on the attached PTO 1449. This Information Disclosure Statement is being filed within three months of the filing date of the above-referenced application and before the mailing date of a first Office Action on the merits for this application.

Copies of U.S. Patent Nos. 5,948,678; 5,792,632; and 5,474,896 are enclosed.

Copies of the listed documents were previously submitted in or cited by the Examiner in prior application numbers 09/244,130, filed February 4, 1999; 09/119,024, filed July 20, 1998 (now U.S. 5,948,678); 08/336,241, filed November 7, 1994 (now U.S. 5,792,632); 08/971,160, filed November 5, 1992 (now U.S. 5,474,896) and 07/879,689, filed May 5, 1992, upon which applicants rely for the benefits provided in 35 U.S.C.

§ 120. Applicants respectfully request that the Examiner consider the listed documents and indicate that they were considered by making appropriate notations on the attached form.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claim in the application and applicants determine that the cited documents do not constitute "prior art" under United States law, applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of such documents.

Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: April 9, 2004

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INFORMATION DISCLOSURE CITATION

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U.S. PATENT DOCUMENTS

Examiner Initial*	Document Number	Issue Date	Name	Class	Sub Class	Filing Date If Appropriate
	5,948,678	09/07/99	Dujon et al.			
	5,792,632	08/11/98	Dujon et al.			
	5,474,896	12/12/95	Dujon et al.			

FOREIGN PATENT DOCUMENTS

	Document Number	Publication Date	Country	Class	Sub Class	Translation Yes or No
	WO 96 04397	2/15/96	PCT			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Colleaux et al., "Universal Code Equivalent of a Yeast Mitochondrial Intron Reading Frame is Expressed into <i>E. Coli</i> as a Specific Double Strand Endonuclease, <i>Cell</i> , Vol. 44, 1986, pp. 521-533.
	Colleaux et al., "Recognition and Cleavage Site of the Intron-Encoded Omega Transposase", <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 85, 1988, pp. 6022-6026.

Examiner	Date Considered
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	Colleaux et al., "The Apocytochrome b Gene of <i>Chlamydomonas smithii</i> Contains a Mobile Intron Related to Both <i>Saccharomyces</i> and <i>Neurospora</i> Introns, <i>Mol. Gen. Genet.</i> , Vol. 223, 1990, pp. 288-296.
	Colleaux et al., "Rapid Mapping of YAC Inserts ..I, " <i>Human Mol. Genet.</i> , Vol. 2(3), 1993, pp. 265-271.
	Dujon et al., "Sequence of the Intron and Flanking Exons of the Mitochondrial 21s rRNA Gene of Yeast Strains Having Different Alleles at the ω and rib-1 Loci, <i>Cell</i> , Vol. 20, 1980, pp. 185-187.
	Dujon et al., <i>Mitochondria</i> , 1983, Walter de Gruyter & Co., pp. 389-403.
	Dujon et al., "In Achievements and Perspective of Mitochondrial Research", <i>Biogenesis</i> , Vol. II, Elsevier Science Publishers, 1985, pp. 215-225.
	Dujon et al., "In Extrachromosomal Elements in Lower Eukaryotes", Plenum Publishing Corporation, 1986, pp. 5-27.
	Dujon B. et al., "Group I Introns as Mobile Genetic Elements: Facts and Mechanistic Speculations - A Review", <i>Gene</i> , Vol. 82, 1989, pp. 91-114.

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	Dujon et al., "Mobile Introns: Definition of Terms and Recommended Nomenclature," <i>Gene</i> , Vol. 82, 1989, pp. 115-118.
	Dujon et al., "Mobile Introns," Abstract presented at EMBO Workshop, Roscoff, France, June 24-28, 1990.
	Jacquier et al., "The Intron of the Mitochondrial 21s rRNA Gene: Distribution in Different Yeast Species and Sequence Comparison Between <i>Kluyveromyces thermotolerans</i> and <i>Saccharomyces cerevisiae</i> , <i>Mol. Gen. Genet.</i> , Vol. 192, 1983, pp. 487-499.
	Jacquier et al., "An Intron-Encoded Protein is Active in a Gene Conversion Process that Spreads an Intron into a Mitochondrial Gene, <i>Cell</i> , Vol. 41, 1985, pp. 383-394.
	Michel et al., "Comparision of Fungal Mitochondrial Introns Reveals Extensive Homologies in RNA Secondary Structure, <i>Biochemie</i> , Vol. 64, 1982, pp. 867-881.

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	Michel et al., "Conservation of RNA Secondary Structure in Two Intron Families Including Mitochondrial-, Chloroplast- and Nuclear-Encoded Members, <i>Embo Journal</i> , Vol. 2(1), 1983, pp. 33-38.
	Michel et al., "Genetic Exchanges Between Bacteriophage T4 and Filamentous Fungi?", <i>Cell</i> , Vol. 46, 1986, p. 323.
	Monteilhet et al., "Purification and Characterization of the <i>in vitro</i> Activity of <i>I-Sce I</i> , a Novel and Highly Specific Endonuclease Encoded by a Group 1 Intron, <i>Nucleic Acids Research</i> , Vol. 18(6), 1990, pp. 1407-1413.
	Muscarella et al., "A Mobile Group I Intron in the Nuclear rDNA of <i>Physarum Polycephalum</i> ," <i>Cell</i> , Vol. 56, pp. 443-454.
	Plessis et al., "Site-Specific Recombination by <i>I-Sce I</i> : A Mitochondrial Group I Intron-Encoded Endonuclease Expressed in the Yeast Nucleus, <i>Genetics</i> , Vol. 130(3), 1992, pp. 451-460.
	Rudin et al., "Efficient Repair of HO-Induced Chromosomal Breaks in <i>Saccharomyces cerevisiae</i> by Recombination Between Flanking Homologous Sequences," <i>Mol. Cell. Biol.</i> , Vol. 8, pp. 3918-3928.

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	Tartot et al., "Gene: New Cloning Vectors and Techniques ...," <i>Gene</i> , Vol. 67, 1988, pp. 169-182.
	Thierry et al., "Cleavage of Yeast and Bacteriophage T7 Genomes at a Single Site Using the Rare Cutter Endonuclease I-Sce I, <i>Nucleic Acid Research</i> , Vol. 19(1), 1991, pp. 189-190.
	Jasin, et al., "Targeted Transgenesis," <i>Proc. Natl. Acad. Sci., USA</i> , 93:17, pp. 8804-8804, Aug. 20, 1996.
	Rouet, et al., "Introduction of Double-Strand Breaks into the Genome of Mouse Cells by Expression of a Rare-Cutting Endonuclease," <i>Molecular and Cellular Biology</i> , pp. 8096-8106, Dec. 1994.
	Rouet et al., "Expression of a Site-Specific Endonuclease Stimulates Homologous Recombination in Mammalian Cells," <i>Proc. Natl. Acad. Sci., USA</i> , 99:6064-6068, June 1994.
	Lukasovich, et al. "Repair of a Specific Double-Strand Break Generated within a Mammalian Chromosome by Yeast Endonuclease 1-Sce1," <i>Nucleic Acids Research</i> , 22:25, pp. 5649-5657, 1994.

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	Smith, et al., "Double-Strand Breaks at the Target Locus Stimulate Gene Targeting in Embryonic Stem Cells," <i>Nucleic Acids Research</i> , 23:24, pp. 5012-5019, 1995.
	Moynahan, et al., "A Model for Testing Recombinogenic Sequences in the Mouse Germline," <i>Human Molecular Genetics</i> , 5:7, pp. 875-886, 1996.
	Jasin, "Genetic Manipulation of Genomes with Rare-Cutting Endonucleases," <i>Trends in Genetics</i> , 12:6, pp. 224-228, June 1996.
	Wall, R.J., "Transgenic Livestock," Progress and Prospects for the Future," <i>Theriogenology</i> , 45:57-68, 1996.
	Viville, S., "Mouse Genetic Manipulation via Homologous Recombination," in <i>Transgenic Animals</i> , Houdebine (eds.), Harwood academic publishers, France, pp. 307-321, 1997.
	Kappel et al., "Regulating Gene Expression in Transgenic Animals," <i>Current Opinion in Biotechnology</i> , 3:348-353, 1992.

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